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ABSTRACT

The conceptions of learning of 29 students enrolled in the Social Science Foundation course of Open University, Great Britain, were analyzed in relation to the five conceptual categories of learning reported by Saljo (1979). The first three of these concepts describes learning as an increase in information, knowledge as external to the student, and the process of learning as involving the transfer of knowledge from an external source to the heads of the learners. In contrast, the essence of the other two of Saljo's concepts seems to be that knowledge is construed by individuals as a result of an active effort on the part of the learner. It is suggested that the difference between these two broad concepts is very similar to the distinction between surface and deep level approaches to learning tasks identified by Marton and Saljo (1976). A deep approach is usually but not always required by Open University course materials; yet, some of the students had little awareness of these different demands. Students who adopt a surface approach to studying concentrate on trying to remember as much detail as possible rather than on trying to understand the overall meaning. The students' descriptions of learning, some of which are included, were found to fit easily into the framework Saljo offers. It is suggested that students' concepts of learning seem likely to be linked to students' approaches to individual study tasks and to their orientation to study. Understanding subject matter as a goal in itself and understanding as a route to personal development are study orientations that are similar to Saljo's conceptions of learning as the neutral abstraction of meaning and learning as the understanding of reality in a personally relevant way. (SW)

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WHAT DO OPEN UNIVERSITY STUDENTS INITIALLY UNDERSTAND ABOUT LEARNING?

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Abstract

How students study can be partially understood in terms of what they understand learning itself to consist of, or what they perceive as required of them in University studies. This paper examines the conceptions of learning of Open University students, taking the Social Science Foundation course, in relation to the categories of conceptions of learning reported by Saljo (1979a). The implications of students' conceptions of learning for their actual approaches to study are discussed.

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SMG8 Conceptions of Learning, Study Habits, Approaches to Study.

WHAT DO OPEN UNIVERSITY STUDENTS INITIALLY UNDERSTAND ABOUT LEARNING?

Introduction

In an earlier report (Gibbs, Morgan & Taylor, 1980) we described an explanation for students not learning effectively which was based in the notion that students develop in their sophistication as learners, some learners are simply less sophisticated than others. This sophistication was described not in terms of skills or techniques of studying, but in terms of students' conceptions of learning and their epistemological stances. Students understand the task facing them as learners to involve very different things because they conceive of learning in different ways. In this report we examine whether the scheme of Saljo (1979a), for categorising students conceptions of learning, is applicable to Open University students. We also examine some implications of students conceptions for the way they are likely to go about their Open University studies.

Background

Through independent studies, parallel schemes have been developed for making sense of the differences one finds between students and the way they approach learning. In Sweden, Roger Saljo (Saljo, 1979a, 1979b) interviewed a very wide cross section of people in order to discover the sorts of conceptions of learning which exist. In America, William Perry (1970) interviewed many students at Harvard in order to understand more about the developments which take place in students approaches to learning. Both of these studies describe progressively more sophisticated stances or conceptions, which involve progressively more self awareness, ability to distinguish between different sorts of learning and learning task demands, and increasingly personal and personally meaningful learning. Saljo's scheme is not intended to be developmental, in the same way as Piaget's developmental stages. He reports that different conceptions exist, and suggest that it is through these different conceptions that learning becomes thematic that is, through which learners are able to reflect on the nature of learning itself rather than taking it for granted. Saljo interviewed students at one moment in time: cross-sectionally, and there is as yet no longitudinal study of students conceptions of learning. Saljo is therefore very wary of calling his scheme a developmental scheme, though the implication is clear enough.

Instead of first describing Saljo's scheme and then going on to examine our own data, we will examine them together, taking each of Saljo's conceptions of learning in turn together with examples from Open University students.

Saljo: Students conceptions of learning

Saljo (1979a) questioned the notion that getting better at learning is simply a quantitative improvement. In contrast, he suggested that learning could be conceived of as differing in its quality and in the nature of its outcome rather than simply in its amount. A quantitative conception of learning is only one conception. What other conceptions do people have? He interviewed people who ranged from very inexperienced to very experienced learners about how they actually went about learning, and what they meant by the word learning. By examining what these people have said, he was able to identify five distinct conceptions of learning, which appeared to describe their understandings.

Our own data came from a study carried out by the Study Methods Group (Morgan, Gibbs & Taylor, 1980). 20 students new to the Open University, and just starting to study D101, the Social Science Foundation course, were interviewed at length about various aspects of their being students. In these interviews, whenever the student used the word learning, the interviewer asked: "When you say learning, what exactly do you mean by learning?" and encouraged the student to explain and illustrate their conception of learning.

In the following section, we have described Saljo's five categories of conception of learning (in boxes). Examples of these conceptions are illustrated by the statements of Open University students.

Data

Conception 1 : Learning as the increase of knowledge

"The main feature of this first category is its vagueness, in the sense that what is given in the answers is merely a set of synonyms for the word learning:

"S: .... it's to increase your knowledge .....

I: .... hum ... could you say something further?

S: .... well, you kind of start with a small bag and there's not much in it, but then the longer you live, the more you will fill it up"."

We were somewhat surprised to find examples of this category:

"I: Can I ask you what do you mean by learning? When you think of learning something, what does it mean to you?

S: To gain some knowledge, I think is learning. We're learning all the time, not necessarily by sitting down and studying. I think there are all kinds of ways. But to me learning is gaining knowledge.

I: Can you explain what you mean by gaining knowledge?

S: I suppose just picking up bits of information really! I think if you do it, quite basically that's what it is. We do that every day in our way of life. Perhaps do it to a greater degree by doing a course. We obviously want to learn more. I obviously want more knowledge about things and I've got an interest in things and I want to know as much as possible about them.

I: So it is gaining bits and pieces of knowledge?

S: Yes, yes."

There is no notion here of how this gaining of bits and pieces occurs, or to what end. There are no distinctions drawn between different sorts of learning which are qualitatively different. Studying is distinguished from everyday life as a source of learning, but this is not out of a sophisticated conception of studying, but out of an impoverished conception of learning which can only accommodate quantitative differences. When you

learn, you know more. Studying may result in more learning than everyday life.

One might expect a student who held such a conception to view studying in terms of its quantity rather than its quality: in terms of how many pages read rather than how relevant the reading and of how many hours studied rather than how productive the hours. Such a student might be expected to be attracted to speed reading as a study technique, and to the efficient organisation of time as a way of maximising study hours. Failure might be expected to be perceived as a consquence of lack of effort.

Conception 2 : Learning as memorising

"The meaning of learning is to transfer units of information or pieces of knowledge, or what is commonly referred to simply as facts, from an external source, such as a teacher or a book, into the head."

"S: To learn ... well as I understand the word ... sort of to listen to and to get it inside ... acquire knowledge kind of ... yes, quite simply to learn it ... yes, sort of to learn, to get things in one's head so they stay there."

The clearest examples of this conception which we found were given by students in order to contrast Open University learning with, i.e. some students explained what they understood learning to be by saying that it was not simply memorising, e.g.:

"I: When you say learning, what exactly do you mean by learning?

S: Well I think that that's quite difficult to answer because I mean just reading something and understanding it I think is not the same thing as learning, but on the other hand just repeating facts is not learning either."

This student makes the apparently curious point that "just reading something and understanding it" is not the same thing as learning. Other

students made similar points, almost as if being interested and making sense of something was too easy and enjoyable to be considered learning, which was not such a sensible activity, e.g.:

"S: Learning that I had at school was boring really .... the last time I went on a Post Office course I fell asleep .... the only sort of learning experience I've had is open a book and read it, and learn, which is very very monotonous.

I: When you say learn it, you mean memorise it?

S: Yes, memorise it. Just a matter of facts and figures and dates and prices when it comes to the Post Office .... and that's it. Very, very boring .... I know now that what I've read so far its a lot different. Its not so much of learning, it's more ideas that you've got. This is different from anything I've done before, so I'm obviously expecting it to be far more interesting then. Well it is. The first Block, it already, it makes you want to read on as opposed to falling asleep half way through it."

Although this student described learning as memorising and perceived that learning in the Open University was more concerned with "ideas", learning in the O.U. was only described in terms of its content and his own interest in it.

Conception 3 : Learning as the acquisition of facts, procedures etc., which can be retained and/or utilised in practice

"Compared to the previous conceptions, some facts, principles etc., are considered to be practically useful and/or possible to remember for a long time, and as a consequence of this they should be learned."

"S: Yes, to learn so that you know it and so that you can make use of it. It shouldn't be just learning something which disappears immediately after you've learned it, but you should be able to make use of it even after a while ...."

Those students whose conceptions we considered to fall into this category seemed not to be able to reflect on learning to any great extent; for them learning had not become thematised. They made few distinctions about different sorts of learning and different learning demands, and their

answers tended to be short. They seemed to have some tentative conception of learning having some function, after all, they had made the considerable decision to study at the Open University but they could say little about learning, e.g.:

"S: ..... you only really learn something if you can use it and it stays relevant .....

I: Can you explain to me what you mean by learning?

S: .... eh .... by learning? ..... learning by rote .... what do I mean? ..... Acquiring knowledge ..... being able to ..... eh ..... use that knowledge to make decisions."

They did not talk about learning as involving understanding or as changing the way one understood the world.

Conception 4 : Learning as the abstraction of meaning

"Compared to the previous two categories, the distinctive characteristic of this conception is that the nature of what is learned is changed. Learning is no longer conceived of as an activity of reproducing, but instead as a process of abstracting meaning from what you read and hear."

"S: For me, personally, learning does not mean that you should learn all those petty details, but instead it means learning about a course of events and how things have developed, and reasoning within my subject, but it does not mean sitting and memorising trifles such as dates and such things as people do ..... "

The reproductive nature of learning is replaced by a conception which emphasises that learning is a constructive activity. The learning material is not seen as containing ready-made knowledge to be memorised, but rather it provides the raw material or starting point of learning.

This is what Bruner's phrase "beyond the information given" refers to (Bruner, 1957). For example:

"S: Well to a certain amount the acquiring of facts it is learning but also understanding is more important. It is grasping what the different ways rather than just learning basic facts."

The important words here are "grasping" and "interpreting", which are active ways of dealing with the subject matter. However, it was common for students who held this conception to see this active learning as being a demand of the subject matter, a demand made by the nature of social science, rather than as a personally chosen and desired type of learning. In some cases students had chosen social science as a field of study because it was seen to make these demands. So although these students perceived the distinction between understanding and memorising, they did not necessarily see themselves as in a position to determine which sort of learning went on.

While to some extent this conception involves the student as an active agent in learning, what is to be learnt is still not necessarily of personal significance. The emphasis can be very much on understanding other people's ideas and theories, rather than on developing one's own. Students with this conception use rather different criteria for judging whether or not learning had taken place, than do students with the other conceptions. While for Conception 3, being able to subsequently recall or use facts or procedures would be the criteria. For Conception 4, perceiving reality differently would be the criteria. For this conception, Conception 4, students required that they felt that they understood, that they could explain to another, or that they could see other points of view, would be considered criteria. For example:

"S: ..... eh ..... well obviously its more than just reading and remembering ..... I think a large part of it is to do with mastering it and understanding .....

I: Can I ask you to explain what you mean by mastering?

S: Well ..... covering it in such a way that you feel reasonably confident that you can not only ..... reproduce what you have learned, but can it it into ..... so that it actually means something more than just in the way in which you've learnt it ..... so that you can see the significance of what you've learnt."

One variation on this 'understanding' conception of learning was that learning involved learning "method", "analysis" or "ways of approaching things". What one learnt was not seen simply as content but as a way of tackling content. Learning "method" enables one to tackle new situations and new content. For example:

"S: I suppose understanding things really. I know that especially from accountancy. I could learn that parrot fashion, but I still wouldn't understand it. And therefore if there is any variation in the problem I wouldn't be able to cope with it ..... with accountancy, the only thing you could really learn in that was law, I think, because there you've got actual facts to base things on. Unless you're going to learn method in accounting but then that's really understanding ..... more than parrot fashion."

Conception 5 : Learning as an interpretive process aimed at the understanding of reality

"This conception of learning is very similar to the previous one in the sense that the picture which is supplied in the descriptions concerning the nature of what is learning is very much the same. The reason for making a further distinction is that some subjects emphasise that an essential element of learning is that what you learn should help you interpret the reality in which you live.

"S: Yes, learning, that means to get the sort of insight into your subject so that you can use it in your everyday life.

S: In some way I think I've found out that you learn things twice somehow. The first time could have been at school really, the second time is the connection, I mean it becomes conscious in some way ..... I mean it should be related to some kind of practice. That's when you have learnt it, I think, terribly much. Then you can live ..... I mean you can sort of be your knowledge in some way. Then, then the really important thing has happened..... "

This is a very similar distinction to that which Carl Rogers (1969) makes about "meaningful learning" and he similarly describes learning things twice over, the second time involving "really" learning.

There were clear examples of this personal, interpretive conception of learning in our own sample of D101 students:

"I: When you say learning, what does learning mean to you. What do you mean by learning?

S: Understanding I think. Understanding. Not just, you know, you can read it, that's OK, and memorise it, but unless you understand the reason that ... a thing .... is what it is,

> its not worth .... you haven't learnt a thing. You've got to gain, like an experience from reading it and you know ... totally experience it ..... I think any kind of learning is going to have to change you ... if you do really learn. Especially in a subject like the social sciences ..... I find ... more so than perhaps some of the other things you know .... like sciences or like maths or technology where you actually just learn, I should think, about that subject. But with social science you learn to understand about people and the world about you and why things happen and therefore when you understand more why they happen, it changes you - your attitude to everything ..... It must affect your everyday beliefs and that. It's got to."

It is obviously not the case that it is only the learning of social science which can be conceptualised in this way, even though this is what this student believes. At the same time, it is easy to see how it might be easier to conceptualise learning this way with reference to the social sciences. Indeed studying the social sciences may even influence the way students conceptualise learning. This possibility could be explored by interviewing the same students at the end of their Foundation Social Science course in order to see how their conceptions had changed. This we have done, and the outcome of this second interview is reported in a separate report, (Gibbs, Morgan & Taylor, 1981).

We also encountered several examples of students who have one sort of conception of learning but are also conscious that it is not the only conception: that study with the Open University will demand a rather different sort of learning. At the same time these students do not fully understand what these new demands will be. They understand enough to recognise that their existing conception is not adequate or appropriate, but do not appear to know how to go beyond it. This can be a very disorienting and worrying position to be in, and seems to be a good example of the difficulty involved in changing crucial conceptions. Perry (1970) describes exactly this sort of phenomenon with reference to students epistemological stance. Those who describe knowledge from an absolutist stance and whose next stage involves a move towards relativism may recognise that the next step to be taken is a large one, with enormous implications for their understanding of the world. They feel hesitant about this step, and yet are still very unclear exactly what this step consists of. The example from a D101 student illustrates this existential dilemma well:

"I: When you say learning, what exactly do you mean by learning?

S: Well, I don't know really. ..... When I do think about learning I'm still very much at school sort of thing and I know it's a very different sort of learning ..... I browse through some of the books that I only got last week, the set books, and still at the moment I'm still in the school sort of learning: the facts and dates and names learning rather than content. And if I read something..... I have read it and I think "what have I just read?" ..... at the moment I feel worried about not taking in what I am doing or what I am learning. I still feel very confused about it ..... I hope something, whatever it is, is settled by the 14th."

This problem seems to arise as a consequence of a fundamental distinction underlying the five conceptions Saljo (1979a) describes:

> "A prominent feature of especially the second conception described above is the idea that knowledge is external to individuals and that the process of learning essentially means a more or less verbatim item-by-item transfer of knowledge from an external source, into the heads of the learners, where it is filed. In contrast the essence of conceptions 4 and 5 seems to lie very much in an emphasis on the assumption that knowledge is construed by individuals as a result of an active effort on the part of the learner to abstract meaning from a discourse and also to relate this meaning to an outside reality."

The frustration and failure students experience in studying in a passive way seems to be one of the levers which acts to bring about a reconceptualisation of the nature of learning itself.

In this next example, the student has her daughter, and the way she is studying for 'O' levels, to compare her O.U. studies with, and also has some early experiences with D101 itself which have influenced her conception. This student seems to be a little further on than the one quoted above, and there are some indications that conceptions 4 and even 5 are beginning to form:

"S: Don't know ..... Same way as Lisa does, I suppose, by rote, which has already become quite clear that I'm not going to be doing that at all with this sort of course. It's all very new, you know .... I'm not expecting it to be the way we were taught history, learn the names of the Kings and Queens of England and that sort of thing. Much more likely to give you, I don't know .... perhaps a more solid idea of a view, a personal view of society perhaps ultimately .... but ... it's a hard question to answer and I've got Lisa over there doing

> O-levels this year, so that's one sort of learning. I know exactly what sort of learning she's got to do, she's got to do it by rote almost, and not give too many opinions or anything. It's almost the exact opposite .... well ... she's not got to present arguments where we have. With the things we're doing it's an entirely different sort of process, isn't it. But had you asked me this in November, before I'd looked at the course material, I would have probably assumed it would have been a similar sort of thing. I've never been to University, I've never come across this sort of way they work there, the way they study, so I wouldn't really have known."

Discussion

The different conceptions of learning which Saljo described seem to be applicable to the Open University students we interviewed. The way they described learning and the distinctions they made about different sorts of learning fit easily into the framework Saljo offers. The main difference we found was that the students we interviewed were often referring specifically to learning as demanded by the Open University. This leads to some students recognising a distinction between their own (previous) conception of learning and the learning demands they perceived the Open University to be making. They were sometimes much less clear about the latter than the former. In other words some of our sample of learners were undergoing some sort of transition in their conception of learning.

Students' conceptions of learning seem likely to be linked to other aspects of their studying. They seem likely to be linked to students' approaches to indivdual study tasks. There is a fundamental difference between Conceptions 1, 2 and 3 on the one hand, and Conceptions 4 and 5 on the other.

The first three conceptions essentially describe learning as an increase in information, knowledge is external to the student and the process of learning involves the transfer of knowledge from an external source into the heads of the learners. In contrast, the essence of Conceptions 4 and 5 seems to be that knowledge is construed by individuals as a result of an active effort on the part of the learner.

The difference between these two broad conceptions is very similar to the distinction between surface and deep level approaches to learning

tasks identified by Marton and Saljo (1976).

The same distinction of approaches to studying has been indentified with Open University students studying D101, (Morgan, Gibbs & Taylor, 1981). Broadly, students who adopt a surface approach concentrate on trying to remember as much detail as possible rather than on trying to understand the overall meaning.

Obviously Open University course materials, although they usually require students to adopt a deep approach, sometimes do require them to adopt a surface approach. But for some students, including some of those interviewed on the study reported here, there is little awareness of these different demands.

So, however hard the Open University attempts to encourage students to take a deep-level approach (for example, the student guide "How to Study in the Open University", written by Andrew Northedge, (1978), explicitly discusses deep and surface approaches), there will be some students who, due to their conceptions of learning, will be oblivious to these attempts and will take a surface approach. It is likely that students whose conceptions of learning was clearly categories 1, 2 or 3 rather than 4 and 5 would be likely to approach studying in this way. As the approaches students adopt towards study tasks have a crucial influence on what they learn, (Marton and Saljo, 1976), their conceptions of learning are of great significance and concern when we are attempting to improve student learning.

As well as this relationship with students' approaches to study, students' conceptions of learning seem likely to be linked to their orientation to study. Why students say they are studying, and what they say they expect to get out of studying may be constrained to some extent by what conception of learning they have. An earlier report (Taylor, Gibbs & Morgan, 1980) described the orientations to study of the same 29 students studied here. Without going over these orientations, in detail, which are described in this earlier report, we would like to draw attention to one likely link between orientation and conception of learning.

We identified two orientations which, although they were both intrinsic, differed in what they were intrinsic to. An academic intrinsic orientation is one in which the student is oriented towards understanding

the subject matter itself. Students in this category might say that they are studying D101 because they are interested in learning about crime or some other aspect of social science. A personal intrinsic orientation, on the other hand is one in which the student is oriented towards changing as a person. With reference to D101 this might mean a student saying that they wanted to understand everyday life better through studying social science. The distinction between these two orientation has been understanding subject matter as a goal in itself and understanding as a route to personal development. This distinction seems to be very similar to that between Conceptions 4 and 5 above: i.e. between learning as the neutral abstraction of meaning and learning as the understanding of reality in a personally relevant way. This and other links between orientation and conception of learning are to be explored in a subsequent report.

Conclusions

The full implications of students conceptions of learning for their studying will not become apparent until they are related to students' approaches and actual learning outcomes. The evidence reported here suggests that new Open University students vary in their conception of learning. Other evidence suggests both that approach to study is linked to conception of learning and that approach is a decisive factor in determining the nature of learning outcomes. It may be that students understanding of what learning consists of is of profound importance to what they learn. By investigating students' conceptions of learning, we are likely to be in a stronger position for understanding how to improve students' learning.

References

Bruner, J.S. (1957) "Going Beyond the Information Given" in Bruner, J.S. et al, "Contemporary Approaches to Cognition" Harvard University Press, Cambridge, Mass.

Gibbs, G., Morgan, A.R. & Taylor, E. (1980) "Understanding Why Students Don't Learn", Study Methods Group, Report No. 5, Institute of Educational Technology, Open University.

Gibbs, G., Morgan, A.R. & Taylor, E. (1981) "Students' Development as Learners: Changes in Conceptions of Learning", Study Methods Group Report, Institute of Educational Technology, Open University (in press).

Marton, F. & Saljo, R. (1976) "On Qualitative Differences in Learning I - Outcome and Process", Brit. J. Educ. Psychol, 46, 4-11.

Morgan, A.R., Gibbs, G. & Taylor, E. (1980) "The Work of the Study Methods Group", Study Methods Group Report No. 1, Institute of Educational Technology, Open University.

Morgan, A.R., Gibbs, G. & Taylor, E. (1981) "Understanding How Students Learn : Outcome & Approach". American Educational Research Association Annual Meeting, Los Angeles.

Northedge, A. (1978) "How to Study : A Guide to Studying at the Open University" Open University, Milton Keynes.

Perry, W.G. (1970) "Forms of Intellectual and Ethical Development in College Years : A Scheme", Holt, Rinehart & Winston, New York.

Rogers, C. (1969) "Freedom to Learn". Merrill, Columbus, Ohio.

Saljo, R. (1979a) "Learning in the Learners Perspective I: Some Common-Sense Conceptions" Reports from the Institute of Education, University of Goteborg, No. 76.

Saljo, R. (1979b) "Learning in the Learners Perspective II: Differences in Awareness", Reports from the Institute of Education, University of Goteborg, No. 77.

Taylor, E., Gibbs, G., & Morgan, A.R. (1980) "The Orientations of Students Studying the Social Science Foundation Course", Study Methods Group Report No. 7. Institute of Educational Technology, Open University.

Reports from the Study Methods Group

Morgan, A.R., Gibbs, G. & Taylor, E. (1980). "The work of the Study Methods Group", Study Methods Group Report No. 1.

Gibbs, G. Morgan, A.R. & Taylor, E. (1980). "A Review of the Research of Ference Marton and the Goteborg Group", Study Methods Group Report No. 2.

Taylor, E., Gibbs, G. & Morgan, A.R. (1980). "The Value of the Lecture: Looking from the Inside", Study Methods Group Report No. 3.

Morgan, A.R., Gibbs, G. & Taylor, E. (1980). "Students' Approaches to Studying the Social Science & Technology Foundation Course: Preliminary Studies", Study Methods Group Report No. 4.

Gibbs, G., Morgan, A.R. & Taylor, E. (1980). "Understanding Why Students Don't Learn", Study Methods Group Report No. 5.

Gibbs, G., Morgan, A.R. & Taylor, E. (1980). "An Example of the Quality of Students' Understanding: Initial Conceptions of Psychology", Study Methods Group Report No. 6.

Taylor, E., Gibbs, G. & Morgan, A.R. (1980). "The Orientations of Students Studying the Social Science Foundation Course", Study Methods Group Report No. 7.

Morgan, A.R., Gibbs, G. & Taylor, E. (1981). "What Do Open University Students Initially Understand about Learning", Study Methods Group Report No. 8.

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